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Game Administration in Pennsylvania



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FIG. 1. RUFFED GROUSE

Intelligent, handsome, gifted with remarkable rapidity and dexterity of flight, this magnificent game bird has long been a favorite among Pennsylvania sportsmen.

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INTENTIONAL SECOND EXPOSURE

BOARD OF GAME COMMISSIONERS

ROSS L. LEFFLER, McKeesport

JARED M. B. REIS, New Castle

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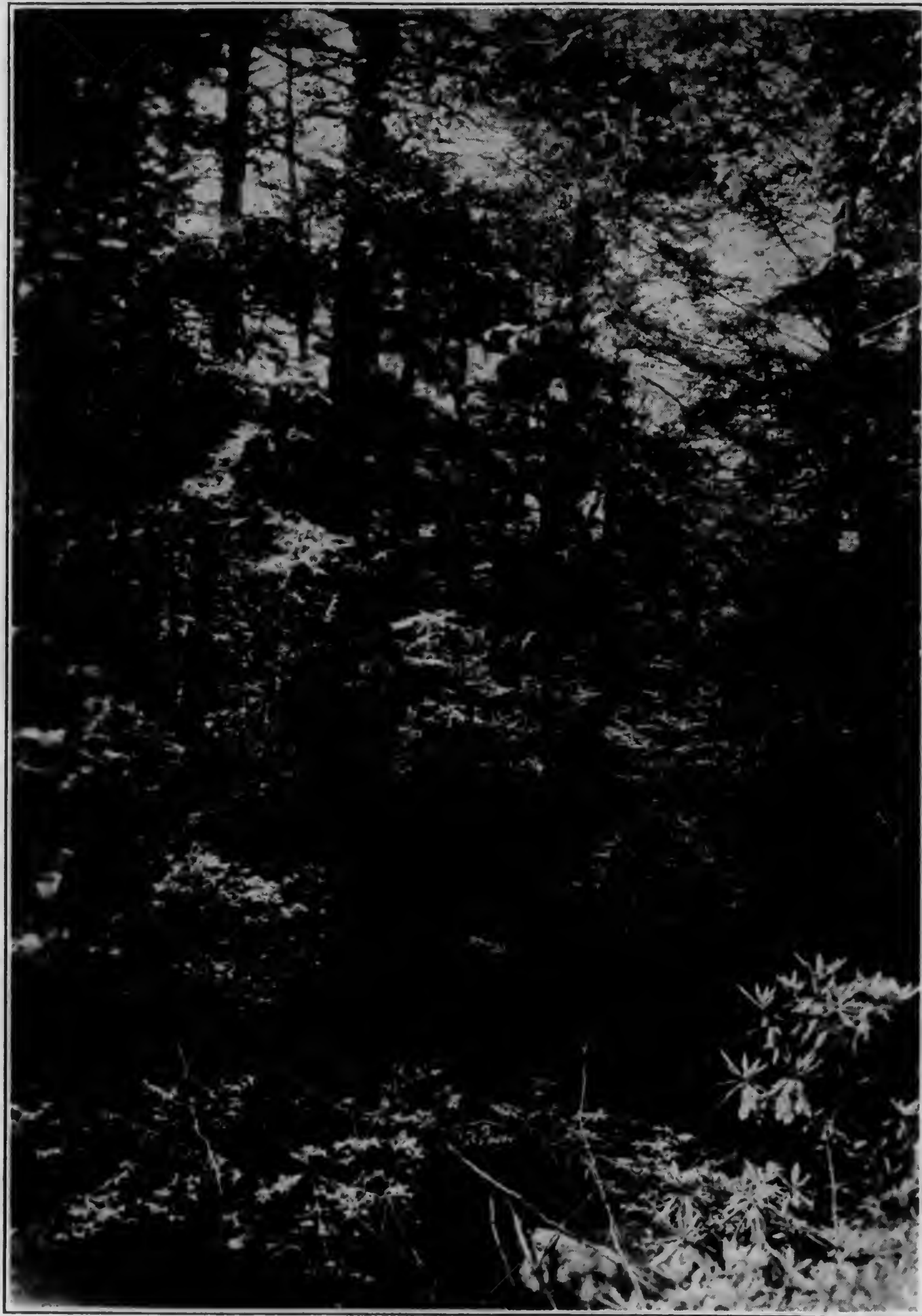
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JOHN B. TRUMAN, *Executive Secretary*, Harrisburg



Photograph by Department of Forests and Waters.

Fig. 2. PENNSYLVANIA WOODLANDS
The verdant home of thousands of valuable game birds and animals.

GAME ADMINISTRATION IN PENNSYLVANIA

BY FRANCIS H. COFFIN

Member of Board of Game Commissioners of the Commonwealth of Pennsylvania

When William Penn founded his colony, the twenty nine million acres comprising what is now the Keystone State were almost entirely covered by a dense forest. Only a few natural meadows and occasional bare mountain tops were free from a magnificent stand of valuable timber. Approximately 125 species of trees were native to the Commonwealth of which some 25 species were of timber value. To-day, that splendid primeval growth has vanished. Here and there a small stand of virgin pine, hemlock, beach or oak, may be seen and the intelligent observer sighs regretfully as he considers the despoliation of this great natural resource by an unthinking civilization. And yet, in Pennsylvania is working the leaven of a constructive program, which, if carried through, may in time restore much of the lost beauty and economic value that was formerly ours.

In the industrial development of the Commonwealth due to its vast mineral resources, wastage of the forest, destruction of game and fish, and pollution of streams were inevitable, but there is to-day an awakening in the minds of thinking men and women, and a growing determination to restore, where it is possible, something of the grandeur of the original Pennsylvania to its denuded hillsides, to preserve and propagate our supply of beneficial wild life, to guard the purity of such of our streams as remain unsullied, and by control of industrial and municipal wastes to restore other water ways to a condition of comparative cleanliness.

This movement toward a restoration of the outdoor values of the Commonwealth is generally referred to under the title of "Conservation." This term in its true sense implies a wise use of natural resources by propagation, protection and sane administration. It is still possible in this great industrial Commonwealth, with its dense population, in the course of one afternoon's drive, to view a stand of virgin pine and hemlock, to see a natural beaver dam with a possible glimpse of one or more of its busy little citizens, to see trout twenty inches or more in length in their native stream, to catch sight of wild white-tailed deer, just possibly a black bear,



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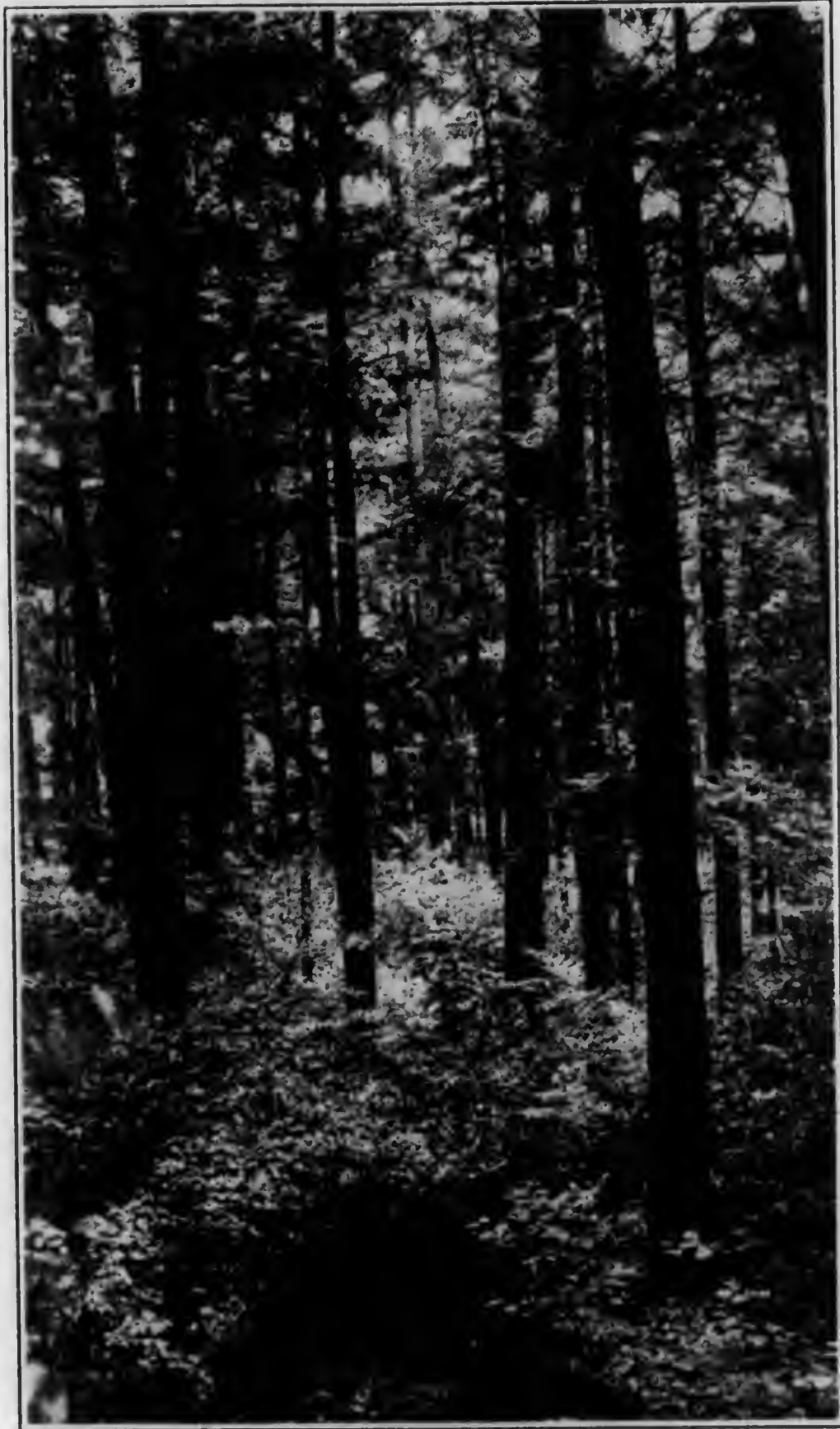
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Photograph by W. Gard. Conklin.

Fig. 3. PRIMEVAL WOODLAND IN CLARION COUNTY: COOK FOREST

These magnificent White Pines are among the finest in eastern North America.

and to hear the croak of the great northern raven, one of the rarest and shyest of North American birds. That such sights are still to be had in Pennsylvania is due to the intervention of the several departments of the State government organized for the protection of the wild creatures and the natural resources of the Common-

wealth, backed by the conservation forces of the outdoor-loving men and women of Pennsylvania.

Dr. Joseph S. Illick, State Forester of Pennsylvania, has defined a forest as "a complex community of living things," and in speaking of the Pennsylvania Forest, I shall try always to keep before you this broad and sweeping visualization. The forest, then, is not only the trees, but also the shrubs, the wild flowers, the grasses and mosses. It includes the wild creatures from the tiniest warbler and chipmunk, to the wild turkey, the deer and the bear. It is the fish in the streams and the streams themselves, and it is with the administration of all these things for the general good of all our people that we are now concerned.

Conservation matters in Pennsylvania are officially handled by three departments: the Board of Game Commissioners, the Board of Fish Commissioners, and the Department of Forests and Waters. I shall endeavor here to present in brief some of the functions and activities of the Game Commission.

ORGANIZATION OF THE BOARD OF GAME COMMISSIONERS

The spirit of hunting seems to wake a thrill in the breast of every male American, boy or man. We like to imagine ourselves as our hardy ancestors, clad in buckskin and dependent on our long rifles for our daily food. Even those who have never killed a buck, or shot a grouse, and who would not have the slightest practical idea as to how to make themselves fairly comfortable in the woods, find a vicarious excitement in reading in the newspapers or magazines of hunting experiences, or in listening to the "tall stories" of their friends. Hunting, therefore, has an almost universal appeal. Properly supervised by wise conservation measures, and inspired by sportsmanlike ideals, it is one of the most useful and wholesome recreations, and should be perpetuated and made possible for succeeding generations of American citizens.

Pennsylvania years ago was a "shot out" state. While there was still an abundance of small game, the big game, deer and bear, was almost exterminated. This was due to an almost total lack of protective laws and of public education as to the benefit and value of the wild life of the Commonwealth.

In contrast with this depletion of wild life of the Commonwealth at that period, the legal kill of the two years 1924-1925 was 17,000 buck deer, about 2,000 does and 1,400 black bears. The legal kill of 1926 was 12,500 bucks, 1,200 does, and 650 bears. In 1925, cub bears were protected by law. The annual value of fur taken in



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Pennsylvania is estimated at from two and one-half to three million dollars. The total weight of game killed in Pennsylvania is estimated at about 5,000 tons of meat, and it is estimated that the



Photograph by Game Protector E. H. Nelson.

Fig. 4. WHITE-TAILED DEER, FEEDING IN AN OPEN FIELD
Deer were nearly exterminated thirty years ago; today they are one of our most abundant animals.

sportsmen's goods industry does a business in the Commonwealth of from fifteen to twenty million dollars annually, in ammunition, arms, hunting clothing and camping equipment.

The reason for this restoration of game is the administrative work of the Pennsylvania Game Commission since the year 1895. In that year, sportsmen and conservationists were successful in having legislation passed authorizing the creation of the State Board of Game Commissioners. The Game Commission began its labors with a first appropriation of \$800 in 1897; in 1913 the hunters' license system was established, granting full control of the license funds to the Board of Game Commissioners; and the disbursements in the last fiscal year were over \$700,000.

The organization of the Board consists of eight commissioners serving without salary, appointed by the Governor, each Commissioner having personal supervision over that portion of the Commonwealth allotted to him by the Board; and an executive secretary and office staff, and four administrative bureaus, each headed by a bureau chief.

The Bureau of Protection has charge of field work in enforcing the game laws and its force comprises 9 supervisors, 64 county protectors, and 8 assistant county protectors. Appointments to this

service are made by competitive examination, which is duly advertised, and the applicants are subjected to a very thorough examination on ten different subjects, and the appointment is made by a selection from the three highest papers, physical qualifications, of course, being taken into consideration.

As a result of this examination we are getting an unusually high type of officer in the service. A conference of the field force of the Board brings together some of the best practical field naturalists in the state, and the discussions of problems relative to the habits of the wild creatures would prove of value to any gathering of scientists.

The Bureau of Refuges and Lands supervises the administration and extension of the game refuge and public shooting grounds system of the Commonwealth, which is the central idea of the whole



Photograph by C. S. Bradford.

Fig. 5. A WILDERNESS VISTA: CLINTON COUNTY

In this region the first Game Refuge was established, in 1905.

Pennsylvania system of game administration, and which has preserved and propagated our supply of big game. There are 36 large refuges each with a resident refuge keeper, and 67 smaller refuges known as "auxiliary refuges." The General Assembly of 1927 increased the resident hunters' license fee from \$1.25 to \$2 with the proviso that the additional revenue be expended by the Board for the purchase and maintenance of refuge areas, and public shoot-

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ing grounds. With additional funds under its control the Board should now be able greatly to extend the refuge system throughout the Commonwealth, with consequent benefit to the game supply.

The Bureau of Vermin Control handles the trapping activities throughout the Commonwealth and pays bounties on such animals as are classed as "vermin," or, more properly, as game destroyers.

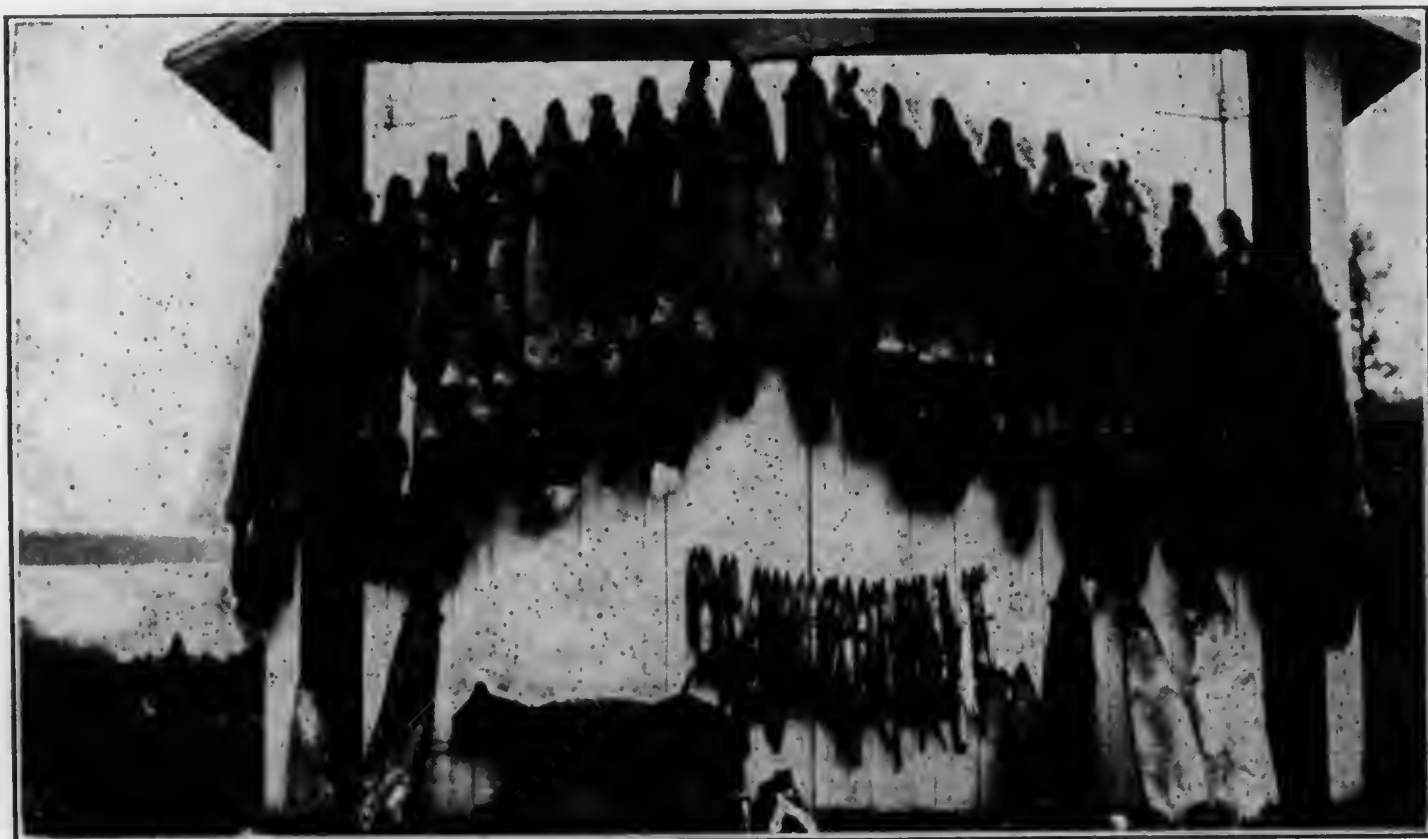


Fig. 6. A SEASON'S CATCH OF GAME DESTROYERS: FOXES AND WEASELS

Predatory animals are carefully controlled in Pennsylvania by Refuge Keepers, Game Protectors, and interested sportsmen.

Bounties are paid annually on about 450 wild cats, 11,000 foxes (red and gray), and 25,000 weasels. These animals are the only ones on which bounties are paid.

The Bureau of Research and Information conducts biological researches, delivers lectures to organizations on request, makes motion pictures of the wild animal life of the Commonwealth, and prepares and issues bulletins of interest to sportsmen and scientists. There is an increasing demand for accurate information as to the wild life of the Commonwealth from sportsmen's associations, service clubs, nature study societies and Boy and Girl Scout organizations, which the commission has been greatly pleased to recognize, and some 300 lectures were delivered during the past year.

The Board is non-partisan in its composition and non-political in its function and all employees are strictly cautioned to refrain from political activities of any kind.

Appointments to the field force are on a civil service basis and not governed by political pressure or influence. Tenure of service for

a good man is thus assured, and he can devote himself strictly to the work to which he is assigned without fear or favor.

PROBLEMS OF GAME ADMINISTRATION

I have outlined above the plan of organization and the functions of the several divisions of the Board of Game Commissioners, and we will now consider some of the problems confronting the Board in their endeavor to propagate and increase the beneficial wild life of the Commonwealth.

The average citizen who considers the work of game administration at all, is apt to think that the most serious thing the Board has to deal with is the illegal hunter or law violator. The game warden, or as we term our field man, the "game protector," was formerly considered as an obnoxious and pestiferous individual, who went snooping around the woods making trouble for the hunter who accidentally or thoughtlessly exceeded his bag limit, or who in some other relatively harmless way infringed the stringent laws of the Commonwealth. This point of view happily no longer prevails among our Pennsylvania hunters, who have learned to know their game protectors as fellow sportsmen, and as men working at all times to protect and foster the best interests of sport for the



Photograph by Deck Lane.

Fig. 7. AMONG THE ARCHITECTURAL MARVELS OF THE WOODS: A BEAVER DAM

Over four hundred established Beaver colonies now exist in Pennsylvania.

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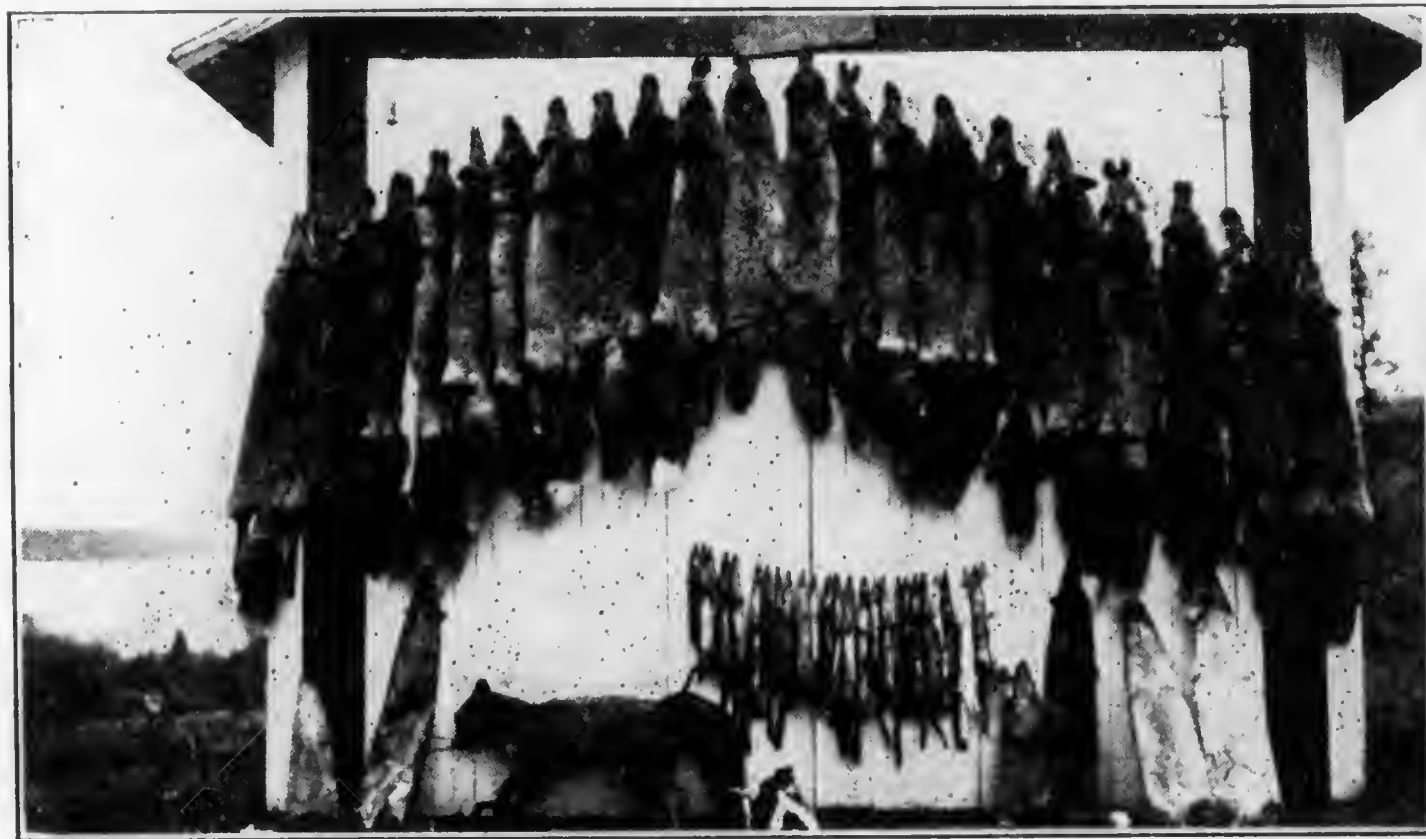


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Pennsylvania sportsmen are, we believe, the best educated group of hunters anywhere. As a class, they understand and appreciate fully the value of the game laws from a conservation viewpoint, and the hunters, themselves, constitute an unofficial force of wardens that functions admirably. There are violators, plenty of them, but the offenders when detected are dealt with without fear or favor, and a persistent violator, even if the game protectors have not as yet been able to convict him, finds it very difficult to find any companions who are willing to share with him in his lawless pursuit. The most serious offenders are those citizens of foreign birth who have not as yet caught the spirit of sportsmanship which characterizes the great majority of our Pennsylvania hunters. The organizations of sportsmen's camps and associations among these people are doing a splendid work, by educating them to higher standards of sportsmanship, and teaching them by precept and example their duties as well as their privileges. The Board has increased its severity as to revocation of hunting licenses for the worst offenders, and any particular case of flagrant violation of the game laws will certainly result in the offender's being denied the privilege of hunting for one or more years. It is a notable fact that only two-tenths of one per cent of the licensed hunters of Pennsylvania have been convicted of game law violations during the past two years. Law enforcement, then, while a most essential part of the work, is not the most pressing of the problems to be dealt with.

It might be interesting to discuss the various species of game creatures, and describe their present condition and place in the wild life census of the state.

The prize trophy and most sought for game animal of the state is the black bear. This most interesting, and in some respects the most intelligent, of our wild creatures, I believe is steadily increasing in those parts of the state suitable to its life habits. The bear prefers the high brushy country with rocky ledges and mountain top swamps, such as the great central Allegheny ridges which cross the northern central part of the state, and the Pocono and Pike County sections. Contrary to general opinion, the bear is not a dangerous animal. No authentic record has been obtained of a bear attacking any person of its own volition. When a bear has been wounded by a hunter, or a mother with cubs is suddenly surprised, it is probable that safety would suggest proper protective measures, but no human being need be fearful of unwarranted attack from a bear while in the Pennsylvania woods. The General Assembly of 1925 passed a law giving complete protection to cub bears, and



Photograph by John J. Slautterback.

Fig. 8. BOUND FOR THE RUGGED RIDGES: A BLACK BEAR BEING LIBERATED AMONG THE PENNSYLVANIA MOUNTAINS

Pennsylvania was the first state to recognize the bear as a valuable game animal.

the shortening of the open season, by the commission, has given additional protection to the species, and we have every reason to believe that the bear will be increased to a point where they will continue to afford strenuous and exciting sport for those qualified to pursue them.

The white-tailed deer, most abundant of our big game animals, are giving the Board its greatest concern at the present time. The so-called "Buck Law" passed about twenty years ago, giving protection to the female deer, and young bucks without antlers, has resulted in such an astounding reproduction of the species, that in many sections of the Commonwealth today, deer are an actual menace to the agriculturist, particularly the apple grower. The tender twigs of young apple trees seem to be an irresistible delicacy to these marauders and much damage has been done by them. There is no effective and accurate way of determining this damage, and for the Board to attempt to compensate for it by payment from the game fund is out of the question. Various remedies are being tried by the Board in the attempt to give relief to the farmers and a solution will eventually be found. There is no doubt that the female deer have increased beyond a reasonable limit and drastic

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measures must be applied to their reduction. Nature has its own severe methods of dealing with over-population, and it is not beyond the bounds of probability that serious epidemics may develop within our deer herds and deplete them, perhaps to extermination, unless an artificial "thinning out" process is resorted to. With this in mind, the commission decided to appoint certain expert hunters living in the affected districts, as deputies, who were to work throughout those sections where damage was most severe, and by shooting out the principal offenders among the mature does, hoped not only to prevent the depredations, but to restore a better biological condition in the herd itself by a reduction of the herd and a balancing of the sexes. This measure has to some extent been successful. The commission also grants to farmers, in sections where damage is severe, on due application, the right to shoot the animals when on their cultivated lands, regardless of sex or season, and utilize the carcass for food if so desired. Eight foot high, stout wire fencing is also provided free of charge by the commission to those farmers and orchardists who will agree to erect the fence at their own expense. These fences are actually "deer proof" and when in place furnish absolute protection and permanent insurance to growing crops and orchards.

The largest big game animal in Pennsylvania is the elk, and it is probably not generally known that a few of these stately creatures



Photograph by George Miksch Sutton.

Fig. 9. A DEPOSED MONARCH RETURNS: WAPITI, OR ELK

Though Wapiti were exterminated in Pennsylvania half a century ago they are now holding their own in Elk County.

are legally killed by hunters in Pennsylvania each season. Elk were restocked in Pennsylvania from 1913 to 1916 and since 1923 when open hunting was permitted, the legal kill was as follows: 1923—23 elk, 1924—10 elk, 1925—6 elk, and 1926—9 elk. Only male animals with four or more points to the antler may be legally killed. Propagation among these animals has not been very extensive, but during the summer of 1926, a number of calves were noted and it is possible they may have started to breed successfully. It does not seem wise to the Board at this time to do any further stocking of these animals, as they are great travelers and the range is limited; also their depredations on growing crops are very severe. At present, they seem to be limited to the most rugged and inaccessible sections of the Commonwealth where it is to be hoped they will remain.

It seems fairly certain that under the Pennsylvania game refuge system, as now developed and extended throughout the Commonwealth, the supply of large game can be adequately maintained, unless some unforeseen calamity such as an epidemic disease, or a similar catastrophe develops. The status of the small game, however, is not so satisfactory, particularly the game birds.

Taking up the several species, let us first consider the ruffed grouse, sometimes, though wrongly so, called the native pheasant. This splendid little fellow is prized by every hunter, as the king of American game birds. Swift on the wing, with a dodging, eccentric flight, it requires a keen eye and a steady hand to bring down the much-prized quarry. The grouse is an inhabitant of the hard-wood ridges, and the dense hemlock growth along the streams, where its favorite food of beech-nuts, acorns, wild grapes and thorn-apples can be obtained, and shelter from the winter storms can be had. The grouse is a hardy creature under normal conditions, but it has many natural enemies, in addition to the toll taken by the sportsmen. The grouse lays a large clutch of eggs, but being a ground nesting bird, the nests are frequently broken up by animal enemies, such as skunks, weasels, snakes and foxes, and the adult birds caught and destroyed by wild cats, horned owls, foxes, domestic cats running at large, and other game-destroying creatures.

In the fall and winter of 1926, Pennsylvania was invaded by an army of goshawks coming down from the North. This invasion was probably due to a scarcity of small game in northern Quebec and Ontario, but whatever the cause, great damage was done to our grouse population by this ruthless killer among birds. Over 600 specimens of goshawks were killed in various parts of Pennsylvania that winter, according to our records, and many of these records show that considerable damage to the local grouse supply had been done by the individual goshawk before he was killed.

measures must be applied to their reduction. Nature has its own severe methods of dealing with over-population, and it is not beyond the bounds of probability that serious epidemics may develop within our deer herds and deplete them, perhaps to extermination, unless an artificial "thinning out" process is resorted to. With this in mind, the commission decided to appoint certain expert hunters living in the affected districts, as deputies, who were to work throughout those sections where damage was most severe, and by shooting out the principal offenders among the mature does, hoped not only to prevent the depredations, but to restore a better biological condition in the herd itself by a reduction of the herd and a balancing of the sexes. This measure has to some extent been successful. The commission also grants to farmers, in sections where damage is severe, on due application, the right to shoot the animals when on their cultivated lands, regardless of sex or season, and utilize the carcass for food if so desired. Eight foot high, stout wire fencing is also provided free of charge by the commission to those farmers and orchardists who will agree to erect the fence at their own expense. These fences are actually "deer proof" and when in place furnish absolute protection and permanent insurance to growing crops and orchards.

The largest big game animal in Pennsylvania is the elk, and it is probably not generally known that a few of these stately creatures



Photograph by George Miksch Sutton.

Fig. 9. A DEPOSED MONARCH RETURNS: WAPITI, OR ELK
Though Wapiti were exterminated in Pennsylvania half a century ago they are now holding their own in Elk County.

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Photograph by Ralph B. Simpson.

Fig. 10. NEST OF RUFFED GROUSE

One reason that game birds persist in spite of their many natural enemies is that they lay large sets of eggs.

Dr. Allen of Cornell, who has been conducting a scientific study of the grouse for the past several years, has already discovered some 16 different forms of intestinal and fungus disease to which the species is subject. In consideration of all these facts, and due also to the reports of our field men and interested sportsmen which show a really alarming scarcity of grouse, the commission is endeavoring to throw every possible protection around this splendid game bird, and every decent sportsman in the Commonwealth should refrain from trying to make a "limit bag," even if he should be fortunate enough to have the opportunity. We must remember that the grouse once gone cannot be restocked, as can quail, ring-neck pheasants and other game birds, for no successful means have as yet been found for rearing him in captivity, and there is no market where a supply is constantly available. The grouse is truly a creature of the wild, and must be given every encouragement, if

he is to be saved as an ornament and a delight in our Pennsylvania forest.

The wild turkey is an inhabitant of some of our southern and central counties, where high, well-timbered ranges offer suitable conditions for the life habits of this magnificent bird. A closed season on turkey in 1926 and encouraging reports from our trained observers gave us reason to hope that the species is at least holding its own, and a short open season was permitted in the fall of 1927. In my opinion, however, we will have to extend our refuge areas considerably, in those sections where turkey are found, in order to provide adequate sanctuaries during the hunting season, if we are to protect this bird permanently. The loss of the great stand of chestnut timber all over Pennsylvania, due to the "chestnut blight," destroyed our best food supply for turkey, and grouse as well, and in my opinion is one of the contributing factors to the depletion of the supply of both these birds.

The bob-white quail, save in northeastern Pennsylvania, is fairly plentiful. The original Pennsylvania stock of quail has probably almost entirely disappeared, but due to heavy importations, and stocking by the Board of Game Commissioners, of the Mexican bob-white, the bird has been re-established in many sections of the Commonwealth. Every encouragement should be given to this little



Photograph by Game Protector W. L. Wright.

Fig. 11. BOB-WHITES AT A FEEDING STATION

The winter feeding of game has been an important feature of Pennsylvania's wild-life conservation program.

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destroying point of view. Potato bugs and other crop-eating insects in summer, and weed seeds in winter, are his "dish" and the sight of his little crested head and the sound of his mellow whistle, are a never ending joy to the nature lover.

The game birds described above are all what the ornithologists call "permanent residents"; that is, they are native to our Pennsylvania fields and forests and do not migrate during the winter or summer months. Another class of game birds are the migrants, which are seen only in transit as they pass through the Commonwealth. In this classification should be grouped the ducks, geese and brant, the shore-birds or waders and the woodcock. These birds being migratory come under the scope of the federal game laws, as well as those of our own Commonwealth.

Under federal protection the ducks have increased greatly, owing largely to the prohibition of spring shooting, and while we in Pennsylvania have comparatively little duck shooting, owing to lack of large water areas suitable for feeding grounds, nevertheless some ducks may be taken along our rivers and in the ponds and lakes of our northeastern counties. The best ducking grounds in Pennsylvania are probably in the vicinity of Erie and around Conneaut lake near the Ohio line.

The woodcock, which is one of our most highly-prized game birds, occurs in Pennsylvania chiefly as a migrant, although breeding birds are frequently found in the low lands along our streams. This species in the opinion of many conservationists is depleted to a very dangerous point and should be given an entirely closed season under the federal game laws, of from three to five years. The bird is subject to the same enemy attacks as the grouse, but unlike the grouse lays a very small clutch of eggs, usually only four in number. The slaughter of woodcock in the Southern states during the winter months has been simply disgraceful, and the protecting arm of the federal government should intervene, to give this valuable species a chance for rehabilitation.

The third class of game birds may be described as "imports"—that is, species which are not native to Pennsylvania, but which have been introduced to our coverts. The most familiar of these is the ring-neck or English pheasant. The male bird is one of the handsomest and most brilliantly colored birds to be seen anywhere. I shall never forget the sight I once had, of a cock-pheasant standing in new-fallen snow, with the morning sun shining upon his gorgeous plumage.

These birds have been heavily stocked by the Board of Game Commissioners in suitable areas throughout the Commonwealth and are showing a gratifying increase in number. In one Pennsylvania county the ring-neck kill last fall was estimated at from 15 to 18



Photograph by Game Protector Joseph P. Kennedy.

Fig. 12. AN UNUSUAL FRIENDSHIP: RING-NECKED PHEASANT AND GAME PROTECTOR

Occasionally a wild bird which has been fed or cared for regularly becomes remarkably tame.

thousand cocks and the game protector for that county informs me that there is no apparent diminution of the birds. Female ring-necks are protected under our game law, and as they can readily be distinguished from the male bird, the hunter should find no difficulty in obeying the law. The commission is now engaged in a special study of the propagation of pheasants and this year will establish

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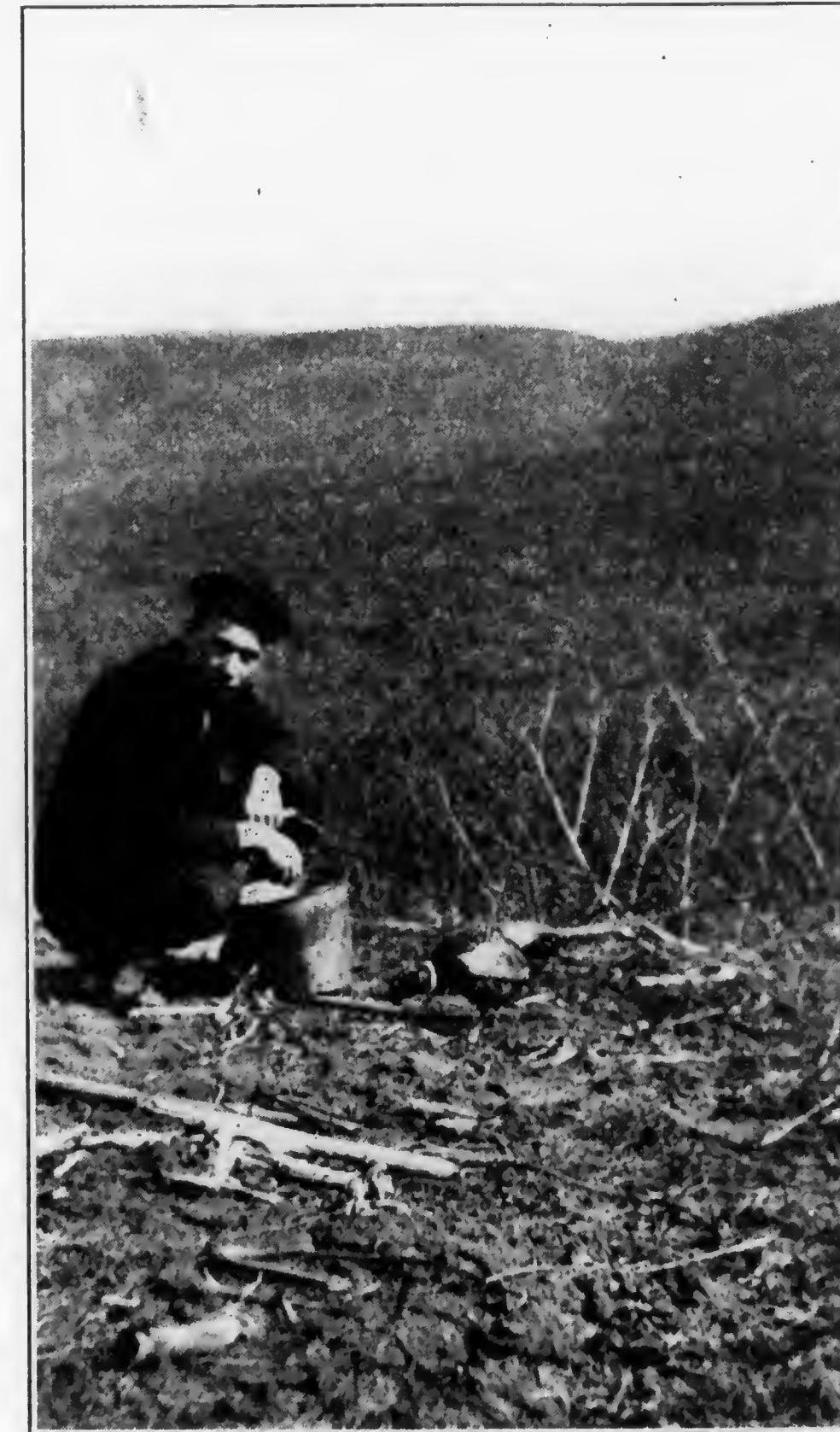
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hatching and propagating plants at thirty-two of the thirty-six State Refuges under the care of a special field officer assigned to study and promote this work. Each plant will be under the personal charge of the refuge keeper where it is located, and excellent results should follow. Splendid cooperation has been given the Board of Game Commissioners by some of our sister states, particularly New York, and we have had full access to their records and experience in this work.

The most recent "import" and a bird to which we are looking with great hopes of successful propagation, is the Hungarian or gray partridge. The Board of Game Commissioners in the past three years has imported and released about 7,000 of these sturdy little creatures, and we are receiving very encouraging reports as to their having bred and raised coveys, in every section where they have been stocked. This bird is about twice the size of a bob-white quail, and somewhat resembles him in shape and markings, although lighter in coloration. He is very hardy, resists extreme cold weather much better than the quail, and the hen bird lays a large clutch of eggs, 15 to 20 not being unusual, so we are very sanguine as to the future of this fine game bird. The Board expects to continue the planting of this species until the birds are thoroughly established, but in the meantime it must be remembered that the Hungarian partridge is under absolute protection at all times.

SMALL GAME ANIMALS

The universal game animal in Pennsylvania is the rabbit, of which we have two species, the common gray rabbit or "cotton-tail," and the varying hare, "snowshoe" or "swamp rabbit." This latter variety limits his habitat usually to elevations of 1,500 feet or more, and is found in or around such high mountain swamp areas as are found throughout the northern part of the Commonwealth. He is a handsome fellow, brownish gray in summer, changing his coat to white in winter (hence his name Varying Hare), and also has the peculiar property in winter of growing stiff bristles between his toes, which act as a pad or snowshoe and enable him to traverse the heavy snows of his habitat.

The common rabbit is familiar to every boy who has been in the country and affords sport to hundreds of thousands of hunters every year. Very prolific and well adapted to thrive under adverse conditions, the rabbit is none the less subject to occasional epidemic disease, and we frequently receive reports of great scarcity of rabbits in certain sections where they are usually plentiful. Apparently this present year is a "good" rabbit year, as they have been reported abundant everywhere in the Commonwealth.



Photograph by Division Supervisor Frank A. Myers.

Fig. 13. VARYING HARE OR SNOWSHOE RABBIT

This mammal changes his coat during winter to match his snowy surroundings. He is gray during summer.

The squirrel, too, is a familiar acquaintance to nearly everyone, and is the favorite game of the country boy, beginning his career as a sportsman. We have in Pennsylvania four kinds of squirrels, but only three species. I am, of course, not referring here to the little ground squirrel or "chipmunk," which is not a game animal at all, but a friendly and amusing little chap who can readily be tamed and who becomes a most interesting acquaintance. The squirrels classed as game are the gray, the black, the red, and the fox squirrel. The gray and black squirrel are the same species, the difference being only a matter of color phase. In eastern and southern Pennsylvania the black squirrel is almost unknown but in north central and locally in western Pennsylvania the black phase is common and quite often predominates in many localities. The Red or Pine squirrel is rather a nuisance as he is a confirmed nest robber, and very destructive to the eggs and young of valuable birds. For this reason the open season on this enterprising gentleman is quite long and he may be legally shot from November 1st to August 15th of the following year.

The fox squirrel is the largest member of the squirrel family, and is, unfortunately, practically confined in his habitat to the western part of the Commonwealth. He is a large, handsome, reddish gray fellow, with a relatively small head, and is an excellent game animal.

The Raccoon is one of the most valuable and interesting forms of wild life, but unless we watch our step, intercollegiate football will have signed his death warrant. The demand for raccoon fur to make coats for our "Flaming Youth" has decimated the ranks of "The little

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Photograph by Division Supervisor W. C. Kelly.

Fig. 14. A COMICAL CREATURE VERY POPULAR AMONG PENNSYLVANIA SPORTSMEN: RACCOON

Brother of the Bear" as the Indians once called him, and a halt should be called on intensive trapping and hunting, until the "coon" has a chance to come back.

I must close, I regret to say, on a note of alarm. Last winter the supply of natural wild-life food throughout the Commonwealth was very low. Due to the chestnut blight and to the severe late frosts of the preceding spring, the crop of nuts, acorns, and wild grapes was almost entirely a failure. Berries and thorn apples were scarce and had been consumed by game long before mid-winter. In certain sections where deer were numerous food which is not ordinarily eaten until mid-winter had been consumed before Christmas. While

food problems of game are usually less severe during the summer, there is a possibility of recurrence of food shortage during coming winters. The Board of Game Commissioners proposes, therefore, a continuous and intensive campaign of artificial winter feeding in the hope that we may offset, partially at least, adverse conditions which prevail during the cold months. To this end we invite the closest cooperation of all interested. Particularly do we ask the help of organized sportsmen's associations, Boy and Girl Scout troops,



Fig. 15. HOME OF MANY SPECIES OF SMALL GAME: A BRUSH-LINED FENCE-ROW

Preservation of natural cover is a most important part of game management.

rural mail carriers, bird clubs, and nature study societies, as well as individual farmers and suburban dwellers. Anyone "hiking" to the winter woods and fields can have a part in this most useful work. Even a pocketful of grain (buckwheat or cracked corn) or a few cobs of corn on the ear, may save the life of a rabbit, grouse or pheasant. Pennsylvania's beneficial wild life, through its custodian and spokesman, the Board of Game Commissioners, asks your help during the coming seasons of hardship.

Scranton, Pennsylvania.
July 25, 1928

END OF NUMBER